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TITLE: Soluble lymphotoxin.beta. receptors and anti-lymphotoxin receptor and ligand antibodies as therapeutic agents for the treatment of immunological disease

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INVENTOR - INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Browning; Jeffrey L. Brookline MA
Benjamin; Christopher D. Beverly MA
Hochman; Paula S. Brookline MA

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CLAIMS:

What is claimed is:

- 1. A method for altering a delayed type hypersensitivity response in an animal comprising the step of administering a pharmaceutical composition which comprises a therapeutically effective amount of a lymphotoxin -.beta. receptor blocking agent and a pharmaceutically acceptable carrier.
- 2. The method according to claim 1, wherein the lymphotoxin-.beta. receptor blocking agent is selected from the group consisting of a soluble lymphotoxin-.beta. receptor comprising a functional sequence of amino acids selected from the amino acids of SEQ.ID.NO.1, an antibody directed against lymphotoxin-.beta. receptor, and an antibody directed against a surface LT ligand comprising at least one lymphotoxin-.beta. subunit.
- 3. The method according to claim 2, wherein the animal is a mammal.
- 4. The method according to claim 3, wherein the mammal is a human.
- 5. The method according to claim 1, wherein the lymphotoxin-.beta.-receptor blocking agent comprises a soluble lymphotoxin-.beta. receptor comprising a functional sequence of amino acids selected from the amino acids of SEQ.ID.NO.1, and having a ligand binding domain that can bind to a surface LT ligand comprising at least one lymphotoxin-.beta. subunit.
- 6. The method according to claim 5, wherein the soluble lymphotoxin-.beta. receptor further comprises a human immunoglobulin Fc domain.

- 7. The method according to claim 1, wherein the LT-.beta.-R blocking agent comprises a monoclonal antibody directed against LT-.beta. receptor.
- 8. The method according to claim 7, wherein the composition is administered in an amount sufficient to coat LT-.beta. receptor-positive cells for 1 to $14 \, \mathrm{days}$.
- 9. The method according to claim 4, wherein the LT-.beta.-R blocking agent comprises anti-human LT-.beta.-R mAb BDA8 produced by the hybridoma cell line BD.A8.AB9 (ATCC Accession No: HB11798).
- 10. The method according to claim 1, wherein the LT-.beta.-R blocking agent comprises a monoclonal antibody directed against surface LT ligand.
- 11. The method according to claim 10, wherein the composition is administered in an amount sufficient to coat surface LT ligand-positive cells for 1 to 14 days.
- 12. The method according to claim 10, wherein the antibody is directed against a subunit of the LT ligand.
- 13. The method according to claim 4, wherein the LT-.beta.-R blocking agent comprises anti-human LT-.beta. mAb B9 produced by the hybridoma cell line B9.C9.1 (ATCC Accession No: 11962).
- 14. The method according to claim 3, wherein the mammal is a mouse and the LT-.beta.-R blocking agent comprises a monoclonal antibody directed against a murine surface LT ligand.
- 15. A method for treating inflammatory bowel disease in an animal comprising the step of administering a pharmaceutical composition which comprises a therapeutically effective amount of a lymphotoxin-.beta. receptor blocking agent and a pharmaceutically acceptable carrier.
- 16. The method according to claim 15 wherein the lymphotoxin-.beta. receptor blocking agent is selected from the group consisting of a soluble lymphotoxin-.beta. receptor comprising a functional sequence of amino acids selected from the amino acids of SEQ. ID.NO.1, an antibody directed against lymphotoxin .beta. receptor, and an antibody directed against a surface LT ligand comprising at least one lymphotoxin-.beta. subunit.

2 of 2